

IN THE CLAIMS:

Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Changes to any amended claims are indicated by strikethrough and underlining. This listing also reflects any cancellation and/or addition of claims.

1. – 6. (Canceled)

7. (New) A processor-readable medium comprising code representing instructions to cause a processor to:

analyze information associated with a first path, the information associated with the first path including a plurality of spatial values associated with the first path, each spatial value from the plurality of spatial values associated with the first path being uniquely associated with a corresponding time value, each spatial value from the plurality of spatial values associated with the first path indicating a position of an object associated with the first path at a time associated with the corresponding time value;

analyze information associated with a second path, the information associated with the second path including a plurality of spatial values associated with the second path, each spatial value from the plurality of spatial values associated with the second path being uniquely associated with a corresponding time value, each spatial value from the plurality of spatial values associated with the second path indicating a position of an object associated with the second path at a time associated with the corresponding time value, the plurality of spatial values associated with the second path including spatial values not included in the information associated with the first path; and

determine, at least partially based on the analysis of the information associated with the first path and the analysis of the information associated with the second path, if the object associated with the first path and the object associated with the second path are the same object.

8. (New) The processor-readable medium of claim 7, further comprising code representing instructions to cause a processor to:

output information associated with a third path, if it is determined that the object associated with the first path and the object associated with the second path are the same object, the information associated with the third path including the plurality of spatial values associated with the first path and at least a portion of the plurality of spatial values associated with the second path.

9. (New) The processor-readable medium of claim 7, further comprising code representing instructions to cause a processor to:

output information associated with a third path, if it is determined that the object associated with the first path and the object associated with the second path are the same object, the information associated with the third path including the plurality of spatial values associated with the first path and any spatial value from the plurality of spatial values associated with the second path that is not substantially similar to a spatial value from the plurality of spatial values associated with the first path.

10. (New) The processor-readable medium of claim 7, wherein the information associated with the first path is information from a video image, each spatial value from the plurality of spatial values associated with the first path being a spatial value of the object associated with the first path within the video image.

11. (New) The processor-readable medium of claim 7, wherein the information associated with the first path is information from a video image, each spatial value from the plurality of spatial values associated with the first path being a spatial value of the object associated with the first path within a real-world coordinate system.

12. (New) The processor-readable medium of claim 7, wherein the information associated with the first path is information from a video image associated with the first path, each spatial value from the plurality of spatial values associated with the first path being a spatial

value within the video image associated with the first object, the information associated with the second path being information from a video image associated with the second path, each spatial value from the plurality of spatial values associated with the second path being a spatial value within the video image.

13. (New) The processor-readable medium of claim 12, further comprising code representing instructions to cause a processor to:

convert each spatial value from the plurality of spatial values associated with the first path to a spatial value within a universal coordinate system; and

convert each spatial value from the plurality of spatial values associated with the second path to a spatial value within the universal coordinate system.

14. (New) The processor-readable medium of claim 12, further comprising code representing instructions to cause a processor to:

convert each time value associated with the first path to a time value within a universal coordinate system; and

convert each time value associated with the second path to a time value within the universal coordinate system.

15. (New) The processor-readable medium of claim 7, further comprising code representing instructions to cause a processor to:

analyze a relationship between the first path and a region of interest, the region of interest being one of an exclusion region, a break region, and a warping region, the code representing instructions to cause a processor to determine being configured to determine if the object associated with the first path and the object associated with the second path are the same object at least partially based on the relationship between the first path and the region of interest.

16. (New) The processor-readable medium of claim 7, further comprising code representing instructions to cause a processor to:

analyze a relationship between the first path and a region of interest, the region of interest being one of an exclusion region, a break region, and a warping region; and

analyze a relationship between the second path and the region of interest, the code representing instructions to cause a processor to determine being configured to determine if the object associated with the first path and the object associated with the second path are the same object at least partially based on the relationship between the first path and the region of interest and the relationship of the second path and the region of interest.

17. (New) The processor-readable medium of claim 7, further comprising code representing instructions to cause a processor to:

determine a confidence value that the object associated with the first path and the object associated with the second path are the same object, the code representing instructions to cause a processor to determine if the object associated with the first path and the object associated with the second path are the same object being configured to make a determination at least partially based on the confidence value.

18. (New) The processor-readable medium of claim 7, wherein the code representing instructions to cause a processor to determine is configured to determine if the object associated with the first path and the object associated with the second path are the same object at least partially based on whether an end spatial value of the first path is within a predetermined distance of a start spatial value of the second path, the end spatial value of the first path having a corresponding time value that is chronologically last of all time values uniquely associated with the plurality of spatial values associated with the first path, the start spatial value of the second path having a corresponding time value that is chronologically first of all time values uniquely associated with the plurality of spatial values associated with the second path.

19. (New) The processor-readable medium of claim 7, wherein the code representing instructions to cause a processor to determine is configured to determine if the object associated

with the first path and the object associated with the second path are the same object at least partially based on whether a time value corresponding to an end spatial value of the first path is within a predetermined time of a time value corresponding to a start spatial value of the second path, the end spatial value of the first path having a corresponding time value that is chronologically last of all time values uniquely associated with the plurality of spatial values associated with the first path, the start spatial value of the second path having a corresponding time value that is chronologically first of all time values uniquely associated with the plurality of spatial values associated with the second path.

20. (New) A processor-readable medium comprising code representing instructions to cause a processor to:

receive information associated with a plurality of paths, each path from the plurality of paths representing movement of an object defined over time;

iteratively determine, for each path from the plurality of paths, whether that path can be linked to another path from the plurality of paths at least partially based on predetermined linking rules; and

resolve conflicts associated with linking a path to another path based on predetermined conflict-resolution rules, if any conflicts exist.

21. (New) The processor-readable medium of claim 20, wherein the code representing instructions to cause a processor to iteratively determine is configured to remove paths within larger paths.

22. (New) The processor-readable medium of claim 20, wherein each path from the plurality of paths includes a plurality of data elements, each data element from the plurality of data elements associated with a path from the plurality of paths including a spatial value and a time value, the code representing instructions to cause a processor to iteratively determine being configured to extract and store at least one data element associated with each path from the plurality of paths, the at least one data element including at least one of a start spatial value, an end spatial value, a length between a start spatial value and an end spatial value.

23. (New) The processor-readable medium of claim 22, wherein the code representing instructions to cause a processor to iteratively determine is configured to sort the plurality of paths according to a start time value associated with the start spatial value for each path and an end time value associated with the end spatial value for each path, the code representing instructions to cause a processor to iteratively determine being further configured to iteratively compare the each path from the plurality of paths sorted according to the start time value of that path with each path from the plurality of paths sorted according to the end time value.

24. (New) The processor-readable medium of claim 20, wherein each path from the plurality of paths includes a plurality of data elements, each data element from the plurality of data elements associated with a path from the plurality of paths including a spatial value and a time value, the code representing instructions to cause a processor to resolve conflicts being configured to determine if a distance between an end spatial value of a first path from the plurality of paths and a start spatial value of a second path from the plurality of paths is within a predetermined threshold.

25. (New) The processor-readable medium of claim 20, wherein each path from the plurality of paths includes a plurality of data elements, each data element from the plurality of data elements associated with a path from the plurality of paths including a spatial value and a time value, the code representing instructions to cause a processor to resolve conflicts being configured to determine if a time between an end time value of a first path from the plurality of paths and a start time value of a second path from the plurality of paths is within a predetermined threshold.

26. (New) An apparatus, comprising:

a first image capture device configured to capture a plurality of images associated with a first physical area over a time period;

a second image capture device configured to capture a plurality of images associated with a second physical area over the time period, the second physical area being substantially different from the first physical area;

a processor in communication with the first image capture device and the second image capture device, the processor being configured to extract a plurality of sets of spatial values and corresponding time values associated with the first physical area from the images associated with the first physical area, the processor being configured to extract a plurality of sets of spatial values and corresponding time values associated with the second physical area from the images associated with the second physical area, each set from the plurality of sets of spatial values and corresponding time values associated with the first physical area being associated with a path of an object within the first physical area, each set from the plurality of sets of spatial values and corresponding time values associated with the second physical area being associated with a path of an object within the second physical area, the processor being configured to analyze the plurality of sets of spatial values and corresponding time values associated with the first physical area and the plurality of sets of spatial values and corresponding time values associated with the second physical area, the processor being configured to link the path of the object within the first physical area and the path of the object within the second area if the processor determines, at least partially based on the analysis of the set of spatial values and corresponding time values associated with the object within the first physical area and the set of spatial values and corresponding time values associated with the object within the second physical area, that the object within the first physical area and the object within the second physical area are the same object.